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REMARKS

By this Amendment, claims 5-6 are amended, claims 1-4 and 7-18 are cancelled, and claims 19-27 are added. Thus, claims 5-6 and 19-27 are now active in the application. Reexamination and reconsideration of the application are respectfully requested.

In item 2 on page 2 of the Office Action, the Examiner objected to the drawings by asserting that not all of the claimed features of the present invention are illustrated in the drawings. In particular, the Examiner asserted that the n-nary counters, as recited in claims 1-3 and 5-6, were not illustrated in the drawings. However, the Applicants respectfully submit that the n-nary counters are indeed illustrated in Figs. 7-8 of the present invention. Specifically, the n-nary counters are represented by the Decimal Counters of Fig. 7 and by the Binary Counters of Fig. 8. Accordingly, the Applicants respectfully request the Examiner to withdraw the objection to the drawings.

The specification and abstract have been carefully reviewed and revised to correct grammatical and idiomatic errors in order to aid the Examiner in further consideration of the application. The amendments to the specification and abstract are incorporated in the attached substitute specification and abstract. No new matter has been added.

The Applicants thank the Examiner for kindly indicating that claims 5-6 are in condition for allowance. Claims 5-6 are amended herein in order to improve the U.S. form thereof, and to avoid a possible construction under 35 U.S.C. § 112, sixth paragraph. The Applicants respectfully submit that claims 5-6, as amended, are still in condition for allowance.

In item 4 on page 2 of the Office Action, claims 1-4 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Suzuki (JP 60000369 A). This rejection is believed to be moot in view

of the cancellation of claims 1-4. Furthermore, the Applicants respectfully submit that this rejection is inapplicable to new claims 19-27 for the following reasons.

New claim 19 recites a device for measuring a frequency of a measured signal. The device as recited in new claim 19 comprises a plurality of n-nary counters, and a plurality of gate circuits operable to supply the measured signal to an input of the plurality of n-nary counters, respectively, where each of the plurality of gate circuits is operable to open in a respective order at a certain time interval. The device of new claim 19 also comprises a latch circuit which is operable to receive a signal from each of the plurality of n-nary counters, and that a frequency measurement result of the measured signal is supplied from the n-nary counters.

New claim 20 recites a method for measuring the frequency of a measured signal. The method as recited in new claim 20 comprises supplying a signal from a plurality of gate circuits, where each of the plurality of gate circuits is operable to open in a respective order at a certain time interval. The method of new claim 20 further comprises receiving the signal from each of the plurality of gate circuits by a latch circuit, where the latch circuit is operable to output the signal in the respective order at a certain time interval.

Suzuki discloses a device for measuring the pulse width of a signal at a low frequency in which a counting signal, as received from a fixed oscillator 11, is supplied to gate circuits 12 through delay circuits 13. Outputs from the gate circuits are supplied to $\frac{1}{2}$ counters and are to be thereafter measured. The outputs from the $\frac{1}{2}$ counters are inputted to a decision circuit 17, which outputs differences between respective counted values and reference values by using the counted values of the counters as reference values. To obtain the pulse width, a multiplier multiplies a counted output

from a $\frac{1}{2}$ counter by the number of rows of the counter and an arithmetic unit 20 adds or subtracts a decided output value from the decision circuit to or from the multiplied output.

Clearly, Suzuki does not disclose or suggest a device for measuring a frequency of a measured signal, where the device comprises a plurality of n-nary counters, a plurality of gate circuits operable to supply the measured signal to an input of the plurality of n-nary counters, respectively, where each of the plurality of gate circuits are operable to open in a respective order at a certain time interval, as recited in new claim 19. Accordingly, new claim 19 is clearly patentable over Suzuki.

Moreover, Suzuki does not disclose or suggest a method for measuring the frequency of a measured signal in which the method comprises supplying a signal from a plurality of gate circuits, where each of the plurality of the gate circuits is operable to open in a respective order at a certain time interval, and receiving the signal from each of the plurality of gate circuits, where the latch circuit is operable to output the signal in the respective order at a certain time interval, as recited in new claim 20. Accordingly, new claim 20 is clearly patentable over Suzuki.

New claims 21 and 27 each recite an apparatus for polishing a substrate, where the apparatus comprises an end point detecting mechanism operable to detect an end point of polishing. Clearly, Suzuki does not disclose, suggest, or even contemplate a polishing apparatus comprising an end point detecting mechanism for detecting an end point of the polishing, as is recited in new claims 21 and 27. Accordingly, for failing to disclose or suggest an end point detecting mechanism operable to detect an end point of polishing, new claims 21 and 27 are clearly patentable over Suzuki.

New claims 25 and 26 each recite a polishing method in which an end point of polishing, as recited in new claim 25, or a thickness of a layer formed on a substrate, as recited in new claim 26,

are detected according to the frequency of a signal as measured by a plurality of n-nary counters. Clearly, Suzuki does not disclose or suggest a polishing method for detecting an end point of polishing, as recited in new claim 25, or a thickness of a layer formed on a substrate, as recited in new claim 26, according to the frequency of a signal as measured by a plurality of n-nary counters. Thus, for failing to disclose or suggest a polishing method for detecting either an end point of polishing or a thickness of a layer formed on a substrate, new claims 25 and 26 are clearly patentable over Suzuki.

Thus, since Suzuki does not disclose or suggest each and every limitation of the present invention as recited in new claims 19-21 and 25-27, the Applicants respectfully submit that new claims 19-21 and 25-27 are clearly allowable over Suzuki.

Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time the invention was made would not have been motivated to modify Suzuki or to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 5-6, 19-21 and 25-27. Therefore, it is submitted that claims 5-6, 19-21 and 25-27, as well as claims 22-24 which depend therefrom, are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

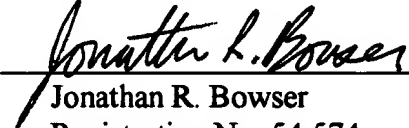
If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

A fee and a Request for a one-month Extension of Time is filed herewith pursuant to 37 CFR

§ 1.136a.

Respectfully submitted,

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August 13, 2003